

Serial No.: 09/746,113
Attorney Docket No.: 3375

REMARKS

Status of the claims

Claims 1-20 and 24-31 are pending in the current application.

Claim Rejections under 35 U.S.C. § 102 should be withdrawn

Claims 1-5, 11-14, 18-20 and 24-28 have been rejected under 35 U.S.C. 102(e) by the Examiner as being anticipated by Caskey et al. (U.S. Patent Number 6,153,379).

Applicants respectfully disagree with the Examiner.

As claimed, the current invention relates to a method for detecting multiple transcripts comprising hybridizing the transcripts to an array of immobilized primers, extending the primers to synthesize complementary DNA (cDNA) under appropriate conditions and detecting labeled extension products (cDNAs- see page 19, lines 3-6 and Figure 1). The current invention teaches a method for monitoring gene expression monitoring, mapping transcription, detecting mutations and different forms of transcripts of a gene (See page 35).

Caskey et al. teach a method for analyzing the nucleotide sequence of a single polynucleotide of interest comprising hybridizing the polynucleotide of interest to oligonucleotides primers, conducting a single base extension reactions and reading the oligonucleotide array to determine the sequence of the polynucleotide of interest or the presence of mutations or sequence alteration.

Caskey et al. do not teach or disclose conducting multiple bases primer extension reactions and, in fact, teaches away from multiple bases extension because the method requires subjecting the primers to a single base extension reaction by extending the primers using terminating nucleotides (such as ddNTPs, see Col. 6, lines 33-64). Caskey

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et al teach a method for analyzing a nucleotide sequence of a single polynucleotide of interest (single or both strands, see Col. 6, lines 9-32). Lastly, Caskey et al. teach a method for sequencing or detecting mutations/sequence alterations in a polynucleotide sequence. Caskey et al. do not teach or disclose monitoring the expression of different genes or quantifying different forms of the transcripts of a gene.

Since Caskey et al. do not teach each and every element of a claimed invention, Applicants respectfully submit that the rejection of Claim 1-5, 11-14, 18-20 and 24-28 under 35 U.S.C. 102 should be withdrawn.

Claim Rejections under 35 U.S.C. § 103 should be withdrawn

Claims 6-10 and 15-17 have been rejected by the Examiner as allegedly being unpatentable over Caskey et al. (U.S. Patent Number 6,153,379) in view of Heller et al. (U.S. Patent No. 5,605,662). Applicants respectfully disagree with the Examiner.

As discussed above, the primary reference Caskey et al. fails to teach, suggest or motivate the detection of transcripts using multiple bases primer extension reactions. Heller et al. is cited as providing detection of multiple RNAs and arrays containing 10,000 probes per cm² and do not remedy the deficiencies of the primary reference. In summary, since neither reference, individually nor in combination, suggest the present invention, Applicants respectfully submit that the Examiner failed to establish a prima facie case of obviousness for the instant Claims. Therefore, Applicants respectfully submit that the rejection of Claims 6-10 and 15-17 under 35 U.S.C 103 should be withdrawn.

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Claims 30-31 have been rejected by the Examiner as allegedly being unpatentable over Caskey et al. (U.S. Patent Number 6,153,379) in view of Combimatrix. Applicants respectfully disagree with the Examiner.

As discussed above, the primary reference Caskey et al. fails to teach, suggest or motivate the detection of transcripts using multiple bases primer extension reactions. Combimatrix is cited as providing the step of fragmenting RNA prior to hybridization to a probe array and do not remedy to the deficiencies of the primary reference. In summary, since neither reference, individually nor in combination, suggest the present invention, Applicants respectfully submit that the Examiner failed to establish a prima facie case of obviousness for the instant Claims. Therefore, Applicants respectfully submit that the rejection of Claims 30-31 under 35 U.S.C 103 should be withdrawn.

CONCLUSION

For these reasons, Applicants believe all pending claims are now in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 731-5000.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account 01-0431.

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If the Examiner has any questions pertaining to this application, the Examiner is requested to contact the undersigned agent.

Respectfully submitted,

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